

5 EVOLUTION DIAGRAMS FOR DEBUGGING DISTRIBUTED
EMBEDDED SOFTWARE APPLICATIONS

Abstract of the Disclosure

Software development methods and tools are described to generate visual representations of a system's behavior over time, called "evolution diagrams," to aid in debugging concurrent software systems. The diagrams take advantage of the exposure provided by coordination interfaces to present more complete views of system executions, explicitly showing events, message traffic between components, etc. The display is presented at a user-selectable hierarchical level of the system design, thus enabling a programmer to work at a design layer where the problem or its effect is easily recognized.